

# viola

Viola's MVP

# How To: Build Instructions

Step by step instructions for running and building this project for iOS and Android targets.

## iOS Build:

Tools needed:

- Visual Studio Code (with flutter and dart extensions installed within the app)
- Flutter (Version 3.7.12)
- Dart (Version 2.19.6)

\*\*1. Getting Flutter installed for MacOS:\*\*

> ⚠ NOTE: Documentation based off Mac with Intel chip

[Flutter Download & Extended Instructions](https://docs.flutter.dev/get-started/install/macos)

a. Download .zip file from link.

b. Extract file in the desired location and add the flutter tool to terminal path:

    `export PATH="\$PATH:[PATH\_OF\_FLUTTER\_GIT\_DIRECTORY]/bin"`

c. Run flutter doctor to see if there are any dependencies you need to install to complete set up:

    flutter doctor

> ⚠ NOTE:

> For the Cocoapods dependency, Homebrew and Ruby Version 2.7 or newer is needed.

> > Install Homebrew:

> `/bin/bash -c "\$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"`

> Check Ruby Version:

> `ruby -v`

> If Ruby update needed:

> `brew install ruby@2.7`

> Add to path: `echo 'export PATH="/usr/local/opt/ruby@2.7/bin:\$PATH"'`

>>

> Android SDK not needed if only running and building for iOS targets.

\*\*2. Start an iOS Simulator:\*\*

    open -a Simulator

\*\*3. Running project through Visual Studio Code:\*\*

> ⚠ NOTE:

> Xcode is needed. [Download Xcode](https://apps.apple.com/us/app/xcode/id497799835?mt=12)

> Flutter 3.7.12 is needed (Equivalent to Dart version 2.19.6). [Flutter SDK Archive]

(https://docs.flutter.dev/release/archive?tab=macos)

> > If downgrade is needed: [Flutter SDK Downgrade](https://karthikponnam.medium.com/flutter-downgrade-any-version-57927705b9e8)

> `cd <flutter path>`

> `git checkout 3.7.12`

> `flutter doctor -v`

> >

> Flutter and Dart extensions need to be installed within the Visual Studio Code app.

a. In Visual Studio Code, open the project directory up.

b. Navigate to lib/main.dart

c. In the bottom right corner you'll see you can set target as iPhone or Chrome for web app.

d. Run main.dart. Depending on what the set target is, the Viola app project should be shown as either an iPhone app or Chrome web app.

> ⚠ NOTE:

> On step 3.d, you should see VS Code do 'flutter pub get' command automatically but if not run `flutter pub get` manually in the terminal of VS Code.

>

## Android Build:

Tools needed:

- Same as iOS (follow instructions above for Flutter and Dart, and Visual Studio Code with Flutter

and Dart Extensions)  
- Android Studio

## **\*\*1. Android Setup:\*\***

> ⚠ NOTE: Documentation based off Mac with Intel chip

[Flutter Download & Instructions](<https://docs.flutter.dev/get-started/install/macos>)

a. Go to link above, then go to Android Setup part of webpage and follow instructions. If flutter is needed, some notes about installation are above in iOS Build.

> ⚠ NOTE: Targeted and Minimum Android Versions:

> > Min SDK 29, Target 33

> > Android OS Versions >=10

c. After installing Android Studio, open it and run `flutter doctor`

> ⚠ NOTE: If flutter doctor says some things aren't complete:

> EX 1: `cmdline-tools component is missing`

> > 1. Open Android Studio and create new project to get the main menu.

> > 2. On the main menu, at the top select "Tools" -> "SDK Manager". Change the SDK Manager Window in middle from "SDK Platforms" to "SDK Tools".

> > 3. Check "Android SDK Command-line Tools (latest)" and press "OK".

> > 4. Run `flutter doctor` to ensure no errors on cmdline-tools

> >

> EX 2: `Android license status unknown.`

> > 1. Run `flutter doctor --android-licenses` to accept the SDK licences.

c. If flutter doctor shows no error for the Android SDK, open Android Studio. Select "Tools" -> "Device Manager". In right hand panel you should see "Pixel\_3A\_API..." and a Run icon to the right. Press the Run icon and it will start a Simulator. Close Android Studio.

d. Open Visual Studio Code. Down on bottom right choose target to be "Pixel\_3A\_API..."

e. Navigate to lib/main.dart in the project. Run main.dart and after dependencies are downloaded, Viola app will run in Android simulator.